

REMARKS

The application has been amended to place it in condition for allowance at the time of the next Official Action.

The specification is amended to remove reference to the claims.

Claims 26-46 are pending in the application.

Claims 26, 27, 29, 31-35, 40 and 41 were rejected under 35 USC 102(e) as being anticipated by SEKI U.S. Publication No. 2004/0190598. That rejection is respectfully traversed.

Claim 26 recites that an interleaver generates and outputs N pieces of data from Q ($N > Q$) data symbols inputted. Thus, the N output pieces of data are greater than the Q input pieces of data.

It appears that based on the characterization of SEKI set forth in the Official Action, Q is greater than N. The Official Action states that input $S_i(Q)$ is greater than output $N(N)$ of the interleaver, which is the opposite to that which is recited.

Moreover, paragraph [0072] offered in support of the interleaver 56 of SEKI generating an increased amount of data does not disclose this feature.

Paragraph [0072] discloses rearranging and distributing along a frequency axis. Neither this paragraph nor any other paragraph of SEKI appears to disclose that an interleaver

generates and outputs N pieces of data from Q ($N > Q$) data symbols inputted.

Rather, Figure 3 of SEKI shows N data pieces input to interleaver 56, while Figure 4 shows N data pieces received from the transmitter (and that were output by interleaver 56).

The $M=2$ value in SEKI is a multiplier, wherein paths are multiplied before interleaver 56 (see paragraph [0071] and converter 53).

SEKI does not disclose that an interleaver generates and outputs N pieces of data from Q ($N > Q$) data symbols inputted as recited in claim 26.

The dependent claims are believed to be patentable at least for depending from an allowable independent claim.

In addition, at least claim 27 includes features that are not disclosed by SEKI.

Claim 27 recites that the transmitter apparatus comprises an FFT processing part for converting the data symbols to the frequency domain data.

The position set forth in the Official Action is that the transmitter apparatus according to SEKI comprises an FFT processing part because in order to have inverse FFT there must have been FFT beforehand.

However, this position is not supported by the disclosure of SEKI.

Rather, as seen in Figure 3 of SEKI, the transmitter only includes an IFFT.

Any FFT processing is in the receiver of SEKI which includes FFT unit 62. See paragraph [0076] and Figure 4 of SEKI.

SEKI does not teach that a transmitter apparatus includes both an IFFT processing part and an FFT processing part. Rather, as set forth above, only an IFFT processing part is in the transmitter while the FFT processing part is in a receiver.

As the reference does not disclose that which is recited, the anticipation rejection is not viable. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 36-38 and 40-46 were rejected under 35 USC 102(e) as being anticipated by SEKI. That rejection is respectfully traversed.

Independent claim 36 is amended along the lines of claim 26 and recites that an interleaver generates and outputs N pieces of data from Q ($N > Q$) data symbols inputted. The analysis above regarding claim 26 as to this feature also applies to claim 36 with respect to SEKI.

Accordingly, claim 36 and the claims that depend therefrom are believed to be patentable over SEKI.

In addition, at least claim 37 includes features not disclosed by SEKI.

Claim 37 recites that the transmitter apparatus comprises an FFT processing part for converting the data symbols to the frequency domain data.

As set forth above, with respect to claim 27, the transmitter apparatus of SEKI only includes an IFFT processing part and does not also include an FFT processing part.

Moreover, the receiver of SEKI only includes an FFT part and not a IFFT part. Thus, these features distinguish claim 37 from SEKI.

Independent claim 45 recites a transmission method including an FFT processing step and an IFFT processing step.

Since the transmitter of SEKI only includes an IFFT processing part, any transmission of SEKI would not include an FFT processing step. Accordingly, SEKI does not anticipate claim 45.

Claim 46 also recites that a transmission step comprises an FFT processing step and an IFFT processing step. These features are not disclosed by SEKI.

Moreover, claim 46 recites that a reception step comprises an FFT processing step and an IFFT processing step. As set forth above, the receiver of SEKI only includes an FFT processing part and thus the receiver of SEKI does not include an IFFT processing step. Accordingly, claim 46 is believed to be patentable over SEKI.

Claims 28 and 30 were rejected under 35 USC 103(a) as being unpatentable over SEKI in view of STEPHENS 7,474,608. That rejection is respectfully traversed.

STEPHENS is only cited with respect to the features of the dependent claims. STEPHENS does not overcome the shortcomings of SEKI as set forth above with respect to claim 26. Since claims 28 and 30 depend from claim 26 and further define the invention, the proposed combination of references does not meet claims 28 and 30.

Moreover, the only section under which STEPHENS could be prior art is 35 USC 102(e). The 102(e) date of STEPHENS is the date of the earliest filed application (Provisional Application No. 60/536071) filed on January 12, 2001. Applicant claims priority to Japanese Application No. 2003-352782 filed on October 10, 2003 which antedates STEPHENS' earliest 102(e) date.

Applicant submits herewith a verified English translation of the Japanese priority document to perfect the claim to priority and remove STEPHENS as a prior art reference.

Accordingly, claims 28 and 30 are believed to be patentable over SEKI in view of STEPHENS independently of the patentability of claim 26 because STEPHENS is unavailable as prior art.

Claim 39 was rejected under 35 USC 103(a) as being unpatentable over SEKI in view of STEPHENS. That rejection is respectfully traversed.

Claim 39 depends from claim 36 and is believed to be patentable at least for depending from an allowable independent claim. In addition, as set forth above, STEPHENS is unavailable as prior art and thus the rejection in view of STEPHENS cannot be maintained.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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APPENDIX:

The Appendix includes the following item(s):

- a verified English translation of JP 2003-352782 filed October 10, 2003